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'Everybody counts'

As a mathematics team we believe pupils are entitled to enjoyment and achievement in their learning, inspired by practitioners who are confident in their subject knowledge, imaginative in their use of inclusive teaching and up-to-date with current mathematical research, who will develop all pupils to become mathematical thinkers equipped with skills for life.

$$\sum_0^{\infty} \text{glosmaths} = \text{enjoy} + \text{achieve}$$



CONGRATULATIONS TO COALEY PRIMARY SCHOOL



WINNERS OF THE 2008 GLOSMATHS 24 CHALLENGE

2009 Regional heats in MARCH

2009 FINAL in JULY

More details nearer the time – get practising now!



$\sum \text{glosmaths} = \text{enjoy} + \text{achieve}$

$\sum_0^8 \text{glosmaths} = \text{enjoy} + \text{achieve}$

Glosmaths

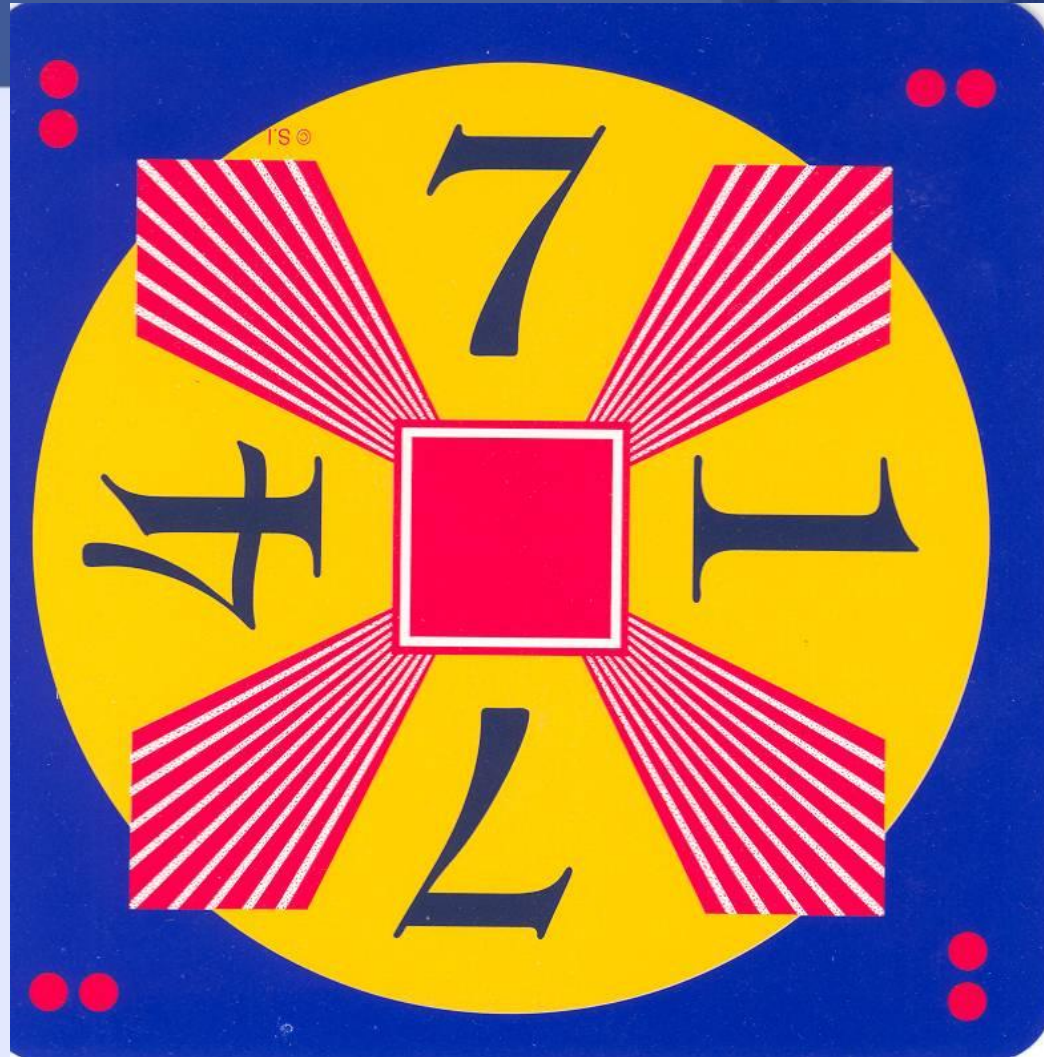
card one



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Glosmaths

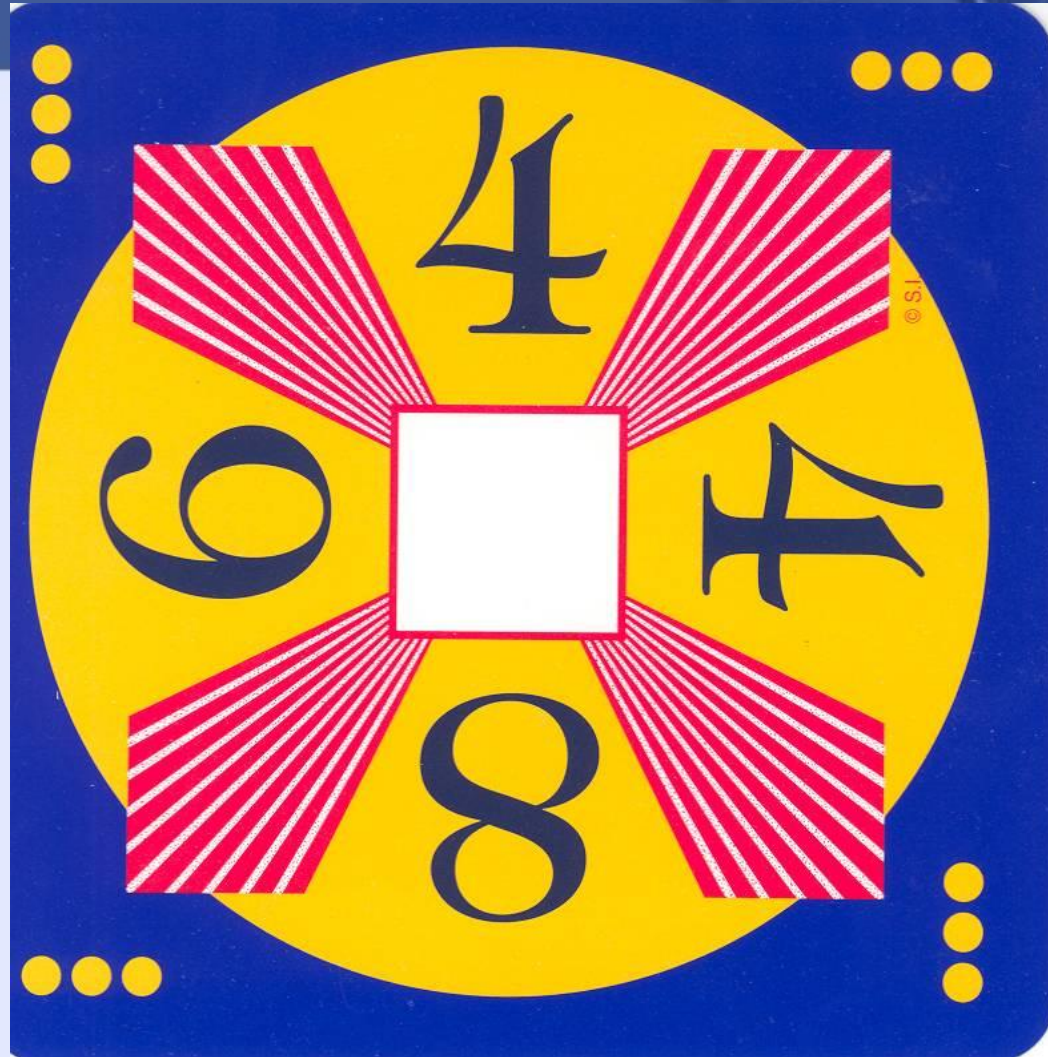
card two

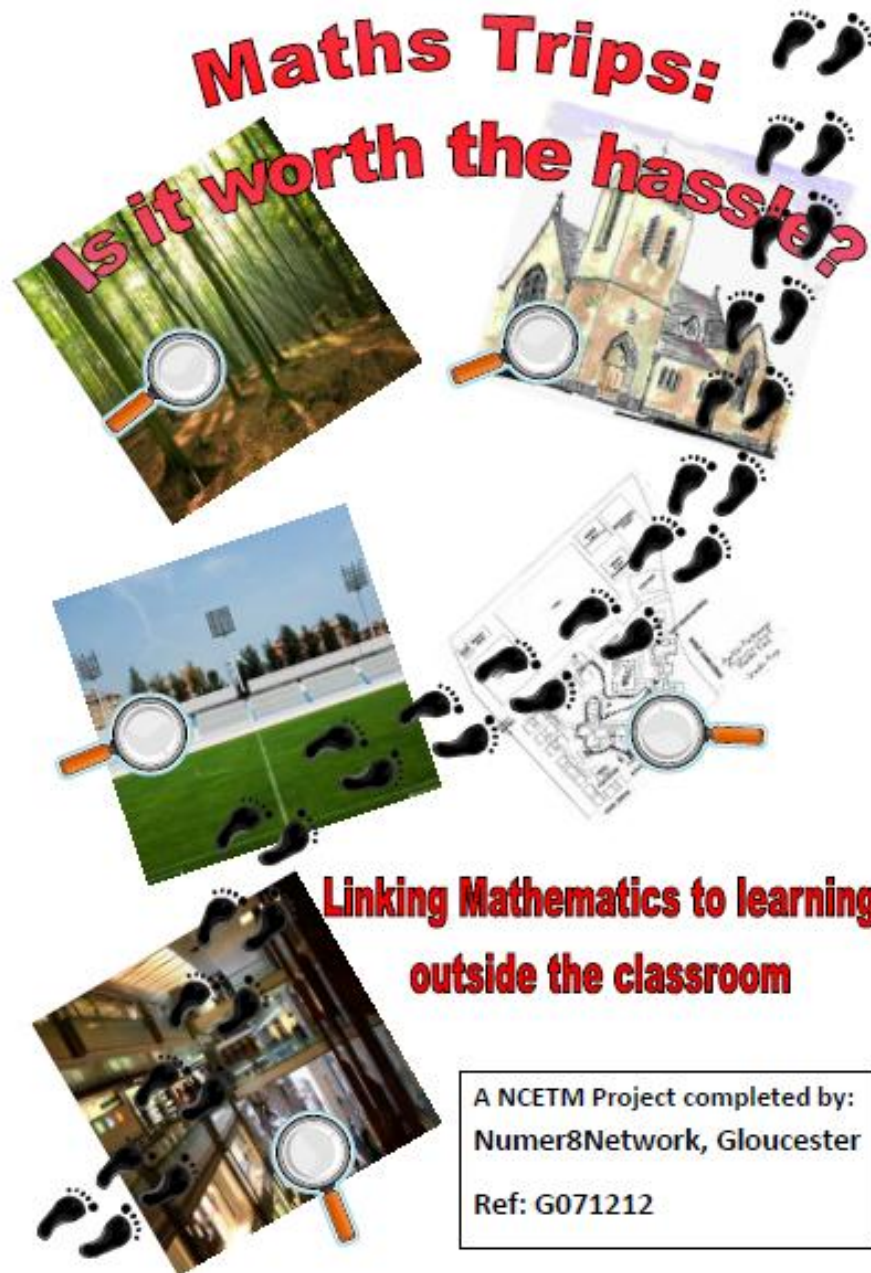


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Glosmaths

card three





Suggested Number & AT1 Activities:

- To build a shelter for a small animal and score points for each natural item used.
- To count in steps of 2, 5 and 10.
- To add and subtract some numbers mentally or by writing notes to help.
- To present solutions to problems in an organised way and to explain decisions and methods used.

Points to consider:

- Undertake Risk assessment.
- Adequate supervision for journey.
- Ensure children wash hands thoroughly after outdoor activities.



Links to other venues:

- School field or wildlife area
- Local park

Suggested Shape, Space and Measure & AT1 Activities:

- To make wax rubbings of symmetrical leaves.
- To identify reflective symmetry in nature.
- To draw lines of symmetry in shapes.
- To complete a symmetrical pattern by drawing the 'other half'.

Suggested Data Handling & AT1 Activities:

- To sort leaves using a Carroll diagram.
- To be able to sort objects in different ways and explain sorting criteria.
- To work with others and to make sure everyone has a turn.



The number of factors of 12	An even multiple of 6	A square number always has an odd number of factors
30 has the same number of factors as 18	2 and 4 are some of the factors of this number	The square of 3
A multiple of 3 that is less than 21	A square number with 3 factors	A square number between 20 and 40

6	16
9	18
36	True
12	25
False	



Question stems

- Show me an example of...
- What is wrong with the statement? How can you correct it?
- What is the same and what is different about?
- How can you change...
- Is this always, sometimes or never true? If sometimes, when?
- Convince me that...



CAME

- 2014 Target - 56 000 students to study A Level maths (80 000 students in mid 1980s)
- 8% increase in 2005 and 2006
- 7% increase in 2007 and 2008
- Target exceeded in 2009 😊
- Target now 70 000 !!

Glosmaths: Aims of the the mathematics curriculum



**Confidence to face challenges in life
- independent problem solver**

Confidence to take steps into the unknown

Enjoyment & pleasure of mathematics

Ability to use skills in the outside world

Basic numeracy skills

Working draft September - December 2007

A big picture of the curriculum



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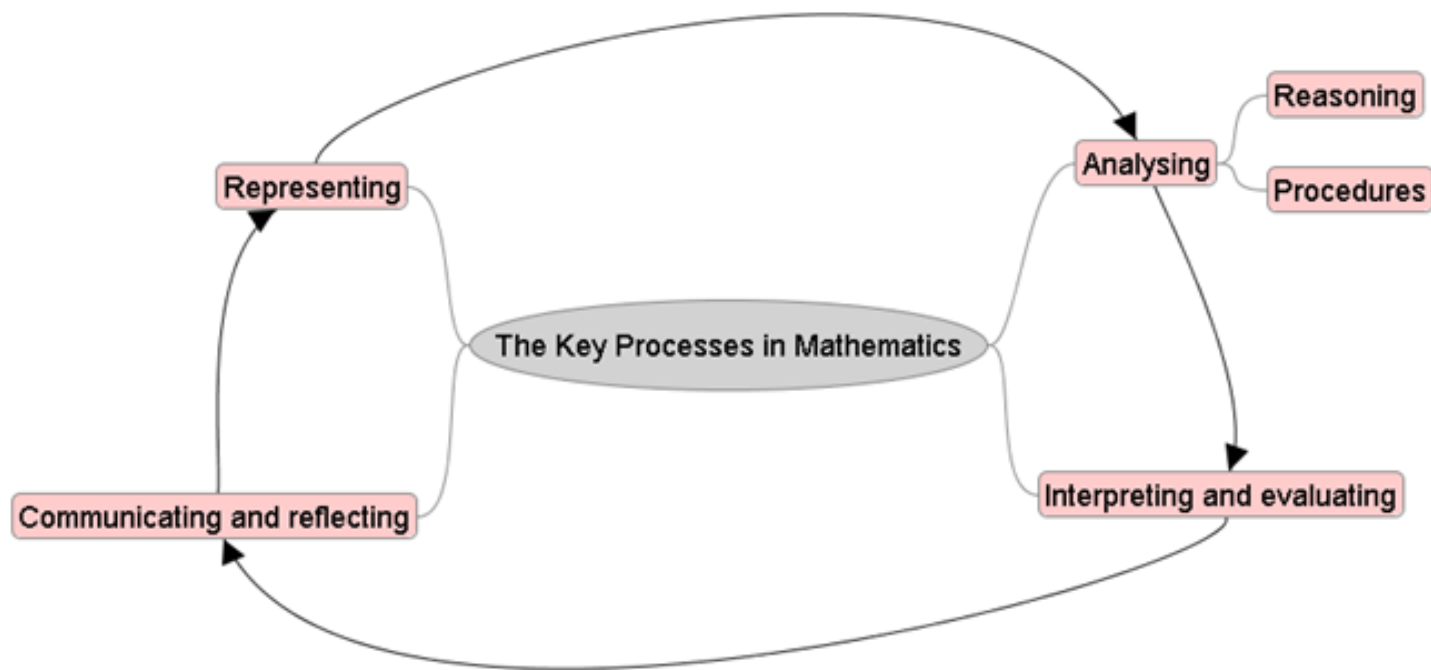
Rethinking
subjects

New subject programmes of study



Qualifications and
Curriculum Authority

Which mathematical processes did you use today?



Glosmaths

Representing	Analysing – using mathematical reasoning	Analysing – using appropriate mathematical procedures	Interpreting and evaluating	Communicating and Reflecting
Identifying mathematical aspects of a problem and trying out ideas	Making and using connections within mathematics and between problems	Using accurate graphs, charts, constructions and diagrams (including with ICT)	Engaging with someone else's mathematical reasoning or modelling	Discussing methods and results
Creating representations, including with ICT	Visualising and working with dynamic images	Using and applying procedures, using accurate notation, including with ICT	Relating findings to the original context, identifying whether they support or refute conjectures	Communicating outcomes effectively, in a range of forms and for different audiences
Choosing between representations	Working logically, recognising impact of assumptions and constraints	Calculating accurately selecting mental methods or calculating devices	Considering assumptions made and the appropriateness and accuracy of results	Reflecting on the elegance, efficiency and equivalence of alternative solutions
Simplifying a problem in order to understand it and to represent it mathematically	Justifying, explaining, convincing and proving	Recording methods, solutions and conclusions (including with ICT)	Making general statements and forming convincing arguments	Reflecting on the approach thinking and findings
Selecting mathematical information	Reasoning inductively and deductively, considering covariance and invariance	Manipulating - using numbers, algebra, graphs and geometric images (including routine algorithms)	Looking for patterns and exceptions	Making connections between different outcomes and with problems having a similar structure
Selecting mathematical methods and tools	Identifying and classifying patterns, specialising and generalising	Monitoring accuracy of results by estimating, approximating and checking	Considering the strengths of alternative strategies	
	Making conjectures and using counter examples	Collecting and analysing data, evidence and information (including with ICT)	Evaluating evidence (including taking account of bias), differentiating between evidence and proof	
	Using feedback from the mathematical context and from discussion			



Bowland Maths



The World's longest conga line happened on 13th March, 1998 in Little Havana, Miami.

119,986 people took part.

Penny and Martin are organising a charity event to form a conga line from Vasteras to Gloucester.

Can they be sure this line will break the record?



STOP THIEF!

A bank manager says that an armed youth stole a bag containing £5000 in £1 coins and ran away.

The insurance company are suspicious, and want you to investigate.

Could the bank manager be lying?



Initial auditions with producers took place in April and May 2007, with callbacks in front of the judges in June. The number of applicants reached an all-time high with 200,000 people auditioning in the cities of London, Birmingham, Sheffield, Cardiff, Glasgow, Manchester and Belfast. Eight thousand people attended an open audition at Emirates Stadium (home of Arsenal F.C.), London, on 9 June 2007. Due to the record number of applications an additional open audition was held at Birmingham Alexander Stadium in Birmingham on 21 July 2007.

- 1) How long would these auditions have taken if they were all seen by the one panel of judges?
- 2) How many judging panels do you think there were in the Emirates Stadium?

There are 60,000,000 people living in the UK.
How many dentists are required?

Make sure you write down all the assumptions you have made, and your final answer must be supported by calculations





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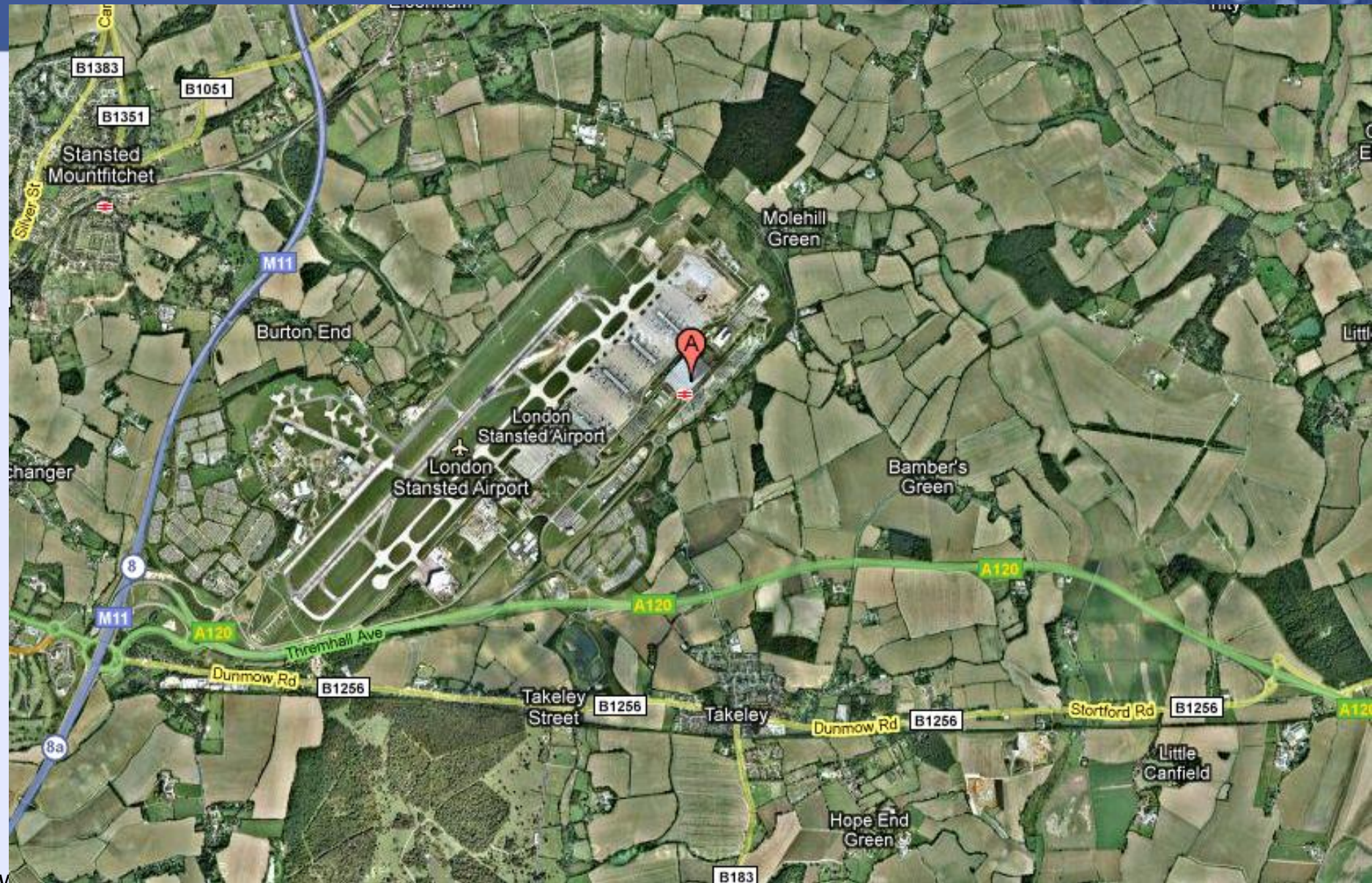
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